

TITLE: Trauma Induced Coagulation treated with Vitamin C therapy

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RESEARCH PROJECT DESCRIPTION

Multiple applicants welcome

Trauma induced coagulopathy (TIC) is a multi-faceted disease process that has only recently been appreciated for its distinction amongst other coagulopathies. TIC's triple hit of hypothermia, acidosis, and massive tissue injury lends itself to therapies that address the massive inflammatory and oxidizing insult that the system undergoes. This logic has led to the introduction of high dose Vitamin C to treat the coagulopathy ensuing from traumatic injury. Vitamin C, which is a potent anti-oxidant, has shown efficacy in medical trials for treating sepsis likely due to its impact on collagen formation, carnitine processing, cellular function, and defense against reactive oxygen species amongst other things. This research project would evaluate the impact of Vitamin C on hemorrhagically induced coagulopathies on swine animals in our large animal laboratory.